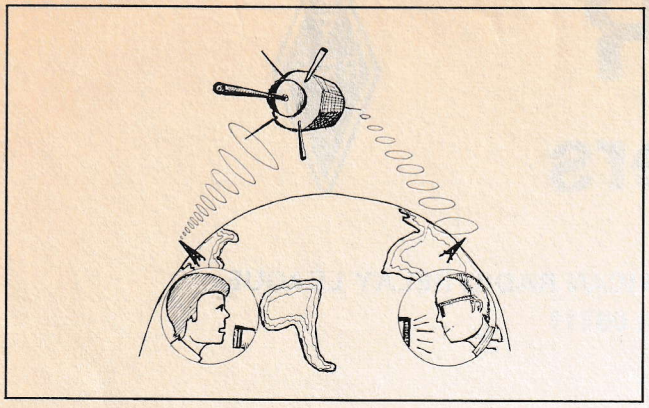
■ WHEN CAN I LISTEN FOR OSCAR?



To determine when to listen for the satellite, you have to know something about its orbit. Both satellites are in 910-mile-high (1,450 km) polar orbits, which means they pass nearly over both the North and South poles. They come within range of every place on earth twice a day, at about the same times each day (morning and evening). Since each orbit takes an exact amount of time (called the "period"), about two hours, and the earth rotates a certain number of degrees longitude during each orbit (called the "increment"), it is easy to determine when the satellites will be within range of your particular location. The ARRL OSCAR-LOCATOR is a device that lets you visualize how the satellites circle the earth.

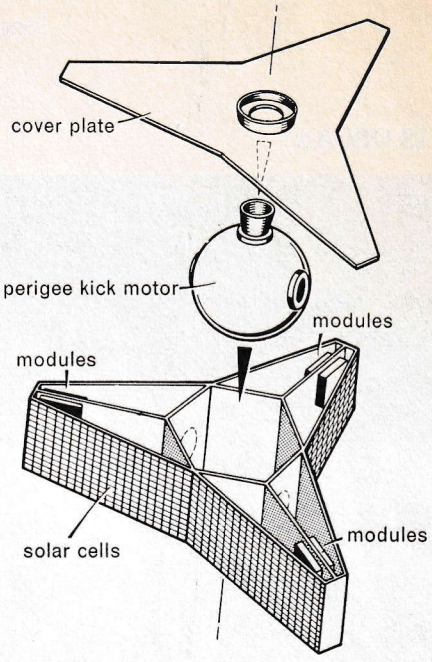
OSCAR	UPLINK	DOWNLINK	BEACON
6	145.900 to 146.000 MHz	29.450 to 29.550 MHz	29.450 MHz
7			
MODE A	145.850 to 145.950 MHz	29.400 to 29.500 MHz	29.502 MHz
MODE B	432.125 to 432.175 MHz	145.975 to 145.925 MHz	145.972 MHz

Notes:

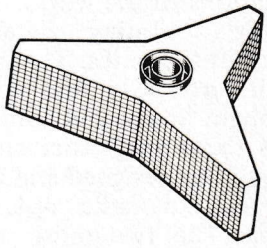
1. All date and time references are in UTC (formerly referred to as GMT).
2. OSCAR 6 operates Monday, Thursday and Saturday evenings (ascending passes only), and Sunday mornings.
3. OSCAR 7 operates in Mode A on odd days of the year, and in Mode B on even days. Wednesdays are reserved for experimental purposes.
4. The Mode B transponder turns "upside down". A signal input to the low end of the 70-cm input returns on the high end of the 2-meter output, and vice versa. Thus, an upper sideband signal returns as a lower sideband signal.
5. Mode B orbits on Mondays (UTC) have been designated QRP orbits -- use a maximum of 10 watts erp when transmitting.

■ WILL THERE BE MORE OSCARS?

Yes, dedicated volunteers in Japan, West Germany, the U.S. and the United Kingdom are working on various components of future OSCARs. One of these, the AMSAT Phase III anticipated for launch in 1979, will have an elliptical orbit that will keep it within range of the entire Northern Hemisphere for several hours at a time. This will expand the amateur satellites' practical uses significantly.



Exploded View



As It Will Look In Orbit

AMSAT–OSCAR Phase III

The group of amateur radio operators in California who put together OSCAR 1 expended just over $63.00 to design and build it. Although the more recent satellites are more complex and expensive, they are still designed and constructed by people from various professions who share a common interest--furthering the amateur satellite program that has contributed so much to bringing people closer together.

For further information about the amateur satellites or amateur radio, contact the American Radio Relay League, 225 Main Street, Newington, CT 06111.

Printed in U.S.A.